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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/753,070

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Ulrich Herb

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EXAMINER

TANG, MINH NHUT

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/753,070	HERB ET AL.	
	Examiner	Art Unit	
	Minh N. Tang	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10 is/are rejected.
- 7) ☒ Claim(s) 8,9,11,13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/8/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on January 08, 2004 is considered by the examiner.

Drawings

3. The drawings are objected to because the amplifier 8 in Fig. 1 is incomplete. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the

Art Unit: 2829

applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: on page 8, paragraph [0027], should "6 = 4.7" be -- G = 4.7 --?

Appropriate correction is required.

5. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

6. Claims 3, 11, 13 and 14 are objected to because of the following informalities:

a/ in claim 3, since there are two protective resistors in the claims, therefore "a protective resistor" (line 1) should be -- protective resistors, each of which --.

b/ in claims 11 and 13 (claim 14 as well), since the claims depend upon claim 11 and recited "the third switch" (line 2). Therefore, to overcome the antecedent basis for the term "the third switch" associated with its connection to the other elements, the examiner suggests that claim 11 is amended by adding in line 9, between "the inputs;" and "and" a limitation -- a test voltage source having two terminals, one terminal being connected to a point on the circuit which conducts a second reference potential, and the other terminal being connected to one of the external connections of the voltage divider via a third switch; --.

c/ in claim 14, line 2, "closing the first, second and third switches" should be -- closing the first and second switches, and opening the third switch --.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-7 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamamoto et al. (U.S.P. 6,731,116).

As to claim 1, Yamamoto et al. disclose, in Fig. 1, a circuit for monitoring resistance between the terminals of a battery (1) and a first reference potential (2), said circuit comprising: first and second inputs (positive/negative terminals) each of which is connectable to one of the terminals of the battery (1); a voltage divider (R4, R5) comprising first and second measurement resistors (R4, R5) and having first and second external connections (i.e., points connected between R3, R4 and R5, R6, respectively), each of which is connected to one of the inputs (positive/negative terminals), and a central connection (i.e., point connected R4 and R5) intermediate said first and second resistors (R4, R5), which central connection is to be connected to the first reference potential (2); first and second switches (SW1, SW2), each of which is arranged in series in a connection between one of the external connections (points connected between R3, R4 and R5, R6, respectively) of the voltage divider (R4, R5)

Art Unit: 2829

and one of the inputs (positive/negative terminals); and a measuring instrument (3), connected to the external connections (points connected between R3, R4 and R5, R6, respectively) of the voltage divider (R4, R5), for supplying a monitoring signal (V3) which is representative of a voltage between the external connections (points connected between R3, R4 and R5, R6, respectively).

As to claim 2, Yamamoto et al. disclose in Fig. 1, said measurement resistors (R4, R5): are each connected in series between the central connection (point connected R4 and R5) and one of the first and second external connections (points connected between R3, R4 and R5, R6, respectively) of the voltage divider (R4, R5); and are identical ($R4 = R5 = R_a$).

As to claim 3, Yamamoto et al. disclose in Fig. 1, protective resistors (R3, R6), each of which is connected in series in each connection between one of the external connections (points connected between R3, R4 and R5, R6, respectively) of the voltage divider (R4, R5) and one of the inputs (positive/negative terminals).

As to claim 4, Yamamoto et al. disclose in Fig. 1, the protective resistors (R3, R6) are identical ($R3 = R6 = R_b$).

As to claim 5, Yamamoto et al. disclose in Fig. 1, a control unit (5) for opening and closing the first and second switches (SW1, SW2) in phase opposition.

As to claim 6, Yamamoto et al. disclose in Fig. 1, the measurement resistors (R4, R5) and protective resistors (R3, R6) are ohmic resistors.

As to claim 7, Yamamoto et al. disclose in column 3, lines 5-9, the measuring instrument (3) is a differential amplifier.

Art Unit: 2829

As to claim 10, Yamamoto et al. disclose in column 2, line 50-54, a vehicle having a battery and a circuit (Fig. 1) as claimed in claim 1, wherein the first reference potential (2) is the vehicle ground.

Allowable Subject Matter

9. Claims 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 11-14 are allowed over the art of record. It is noted that claims 11, 13 and 14 should be amended as suggested in paragraph 6 above.

11. The following is a statement of reasons for the indication of allowable subject matter:

Claims 8-9 and 11-14 recite, inter alia, the differential amplifier is connected to a second reference potential as a supply potential; and a test voltage source is provided having two terminals, one terminal being connected to a point on the circuit which conducts the second reference potential, and the other terminal being connected to one of the external connections of the voltage divider via a third switch.

The art of record does not disclose the above limitations, nor would it be obvious to modify the art of record so as to include the above limitations.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Sone et al. 5,818,236 Method And Apparatus For Checking Insulation Of

Art Unit: 2829

Ungrounded Power Source.


Tobise 4,562,390 Insulation Resistance Measurement In Static Leonard
Apparatus.

Hall 4,242,631 Front-End Circuit Apparatus For Impedance
Measurements And The Like.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh N. Tang whose telephone number is (571) 272-1971. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (571) 272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MINH NHUT TANG
PRIMARY EXAMINER

02/02/05